

REMARKS

Claims 1-9 are pending in this application. Claim 1 is the only independent claim. By this amendment, claim 1 is amended.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

The Claims Define Patentable Subject Matter

In the Final Office Action, the Examiner rejects: (1) claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Number 6,633,550 to Gårdenfors et al. (hereafter Gardenfors) in view of U.S. Patent Number 5,287,556 to Cahill (hereafter Cahill); and (2) claims 3-9 under 35 U.S.C. §103(a) as being unpatentable over Gardenfors in view of Cahill and further in view of U.S. Patent Number 6,490,441 to Saito (hereafter Saito) and U.S. Patent Number 6,466,270 to Ichihara (hereafter Ichihara).

These rejections are respectfully traversed.

Applicant respectfully submits that the combination of Gardenfors and Cahill fails to teach or suggest each and every feature as set forth in the claimed invention. Furthermore, applicant respectfully submits that their fails to be proper motivation for combining Gardenfors with Cahill.

Claim 1 recites, *inter alia*, first and second adjustment means. The first adjustment means is provided in the band pass filter for adjusting the band pass characteristics of the band pass filter. The first adjustment means adjust the band pass

characteristics in response to a frequency adjustment. The second adjustment means adjusts a cut-off frequency of the low pass filter. A frequency adjustment signal fed from a digital circuit is shared for adjustment of the band pass characteristic and adjustment of a signal in a demodulation circuit by the first adjustment means, and adjustment of the cut-off frequency by the second adjustment means.

For example, in the present invention the adjustment signal generating means can correspond to the digital circuit 30. The demodulation circuit 24 is provided between the band pass filter 23 and the digital circuit 30. A phase shifter, which has partially the same circuit configuration as the band pass filter 23, and a multiplier can make up the demodulator circuit 24. (see present application, page 3, 2<sup>nd</sup> paragraph; page 10, 2<sup>nd</sup> paragraph; and Figs. 6 and 7). The demodulator circuit 24, as with the band pass filter 23, is preferably adjusted with the use of the frequency adjustment signal fed from the digital circuit 30. The frequency adjustment signal fed from the digital circuit 30, used in the band pass filter 23 and the demodulation circuit 24 of the receiver section, is also used for the low pass filter 27 of the transmitter-receiver circuit.

In other words, the transmitter-receiver circuit of amended claim 1 allows for the shared use of the frequency adjustment signal fed from the digital circuit. This frequency adjustment signal is for adjusting both the band pass characteristics and a signal in the demodulation circuit by the first adjustment means. In addition, the frequency adjustment signal adjusts a cut-off frequency of the second adjustment means. This eliminates the need

to have frequency adjustment signals dedicated to each respective adjustment, thus reducing the size of the whole circuit.

Applicant respectfully submits that the combination of Gardenfors and Cahill fails to teach or suggest a shared use of the frequency adjustment signal fed from the digital circuit, as set forth in claim 1.

The Examiner concedes that Gardenfors fails to disclose adjustments from the frequency adjustment signal of an adjustment signal generating means (filter controller). (see Office Action, page 2). In an attempt to make up for the deficiencies found in Gardenfors, the Examiner imports Cahill. Specifically, the Examiner alleges that Cahill discloses variable filters having their characteristics controlled by filter controllers. (see Office Action, pages 2-3). Applicant disagrees with this allegation.

Applicant respectfully submit that Cahill fails to make up for the deficiencies found in Gardenfors. Applicant submits, that like Gardenfors, Cahill also fails to teach or suggest a shared use of the frequency adjustment signal fed from the digital circuit, as set forth in amended claim 1. Instead, separate adjustment signals are dedicated to each respective adjustment in Cahill. (see Cahill, Figs. 1,2 3).

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest

all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Furthermore, applicant respectfully submits that from our review of Gardenfors and Cahill, we find no teaching or suggestion to support the examiner's asserted motivation to combine the references so as to enhance the signal quality. The examiner's statement that enhancing the signal quality is an advantage gained by combining Gardenfors with Cahill is unsupported because the examiner has not established that enhanced signal quality is a factor recognized by Gardenfors or Cahill.

Applicant respectfully submits that but for applicant's own disclosure of the specific elements involved, the applied references themselves would not have instructed one versed in the art on how to go about selectively reworking and modifying the variable band pass filter and low pass filter controlled by a controller of Cahill with Gardenfors device to yield applicant's claimed device. Accordingly, applicant submits that the Examiner's rejection is predicated upon impermissible hindsight, and not upon a suggestion from the combination of the references applied that would have been derivable by one versed in the art from the references themselves.

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Applicant respectfully submit that only through impermissible hindsight reconstruction using applicant's invention would one find motivation to modify the Gardenfors and Cahill devices to have all of the claimed features.

Applicant further submits that the Office Action has improperly used applicant's invention as a road map to pick and choose features and paste the chosen features together to arrive at the claimed invention, even though the reference does not provide any teachings, suggestion or motivation to make the modification.

Applicant respectfully submits that the combination of Gardenfors and Cahill fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claim 1 is allowable over the combination of Gardenfors and Cahill for at least the reasons noted above.

Furthermore, applicant respectfully submits that Saito and Ichihara both fail to make up for the deficiencies found in Gardenfors and Cahill noted above.

As for each of the dependent claims not particularly discussed above, these claims are allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1-9 under 35 U.S.C. §103(a) is respectfully requested.

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Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 to schedule a Personal Interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.


Respectfully submitted,

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